

Farm Management Strategies for Johne's Disease in Sheep

Johne's Disease in sheep requires a combination of on farm management and husbandry strategies to reduce the impact of the disease on your property.

An initial risk assessment of your property is required to identify key areas of biosecurity that can be improved or implemented. In addition a good knowledge of mob classes and knowing the animals most 'at risk' is essential.

Know which animals at risk

- Sheep of all ages are susceptible
- Young animals under 12 months of age are the most likely to become infected from grazing in contaminated paddocks and potentially while suckling from the ewe. Ingestion of contaminated faeces can occur at these times. For younger age group sheep it is recommended to:
 - avoid holding yards; these can be heavily contaminated areas
 - use portable yards when possible
 - crutch ewes prior to lambing to reduce faecal contamination on the udder
 - ensure good nutrition to ewes to maximise lactation which may help reduce early grazing and potential contamination to the lambs.
- Older animals may be infected and shed the bacteria in their faeces without becoming clinically unwell. However when the immune system is challenged with nutritional, environmental or other co-morbidity conditions like heavy parasite burdens clinical expression and heavy shedding of the bacteria can occur.

Best practice recommendations for Gudair Vaccination

- A once off vaccination with no annual boosters required. The cost is approximately \$3 per animal for their lifetime.
- If no previous vaccination has occurred on your property then vaccinate all animals that will be retained for longer than 12 months.
- Replacement lambs should be vaccinated between 4-16 weeks of age. To be classed as an approved vaccinate they must be vaccinated prior to 16 weeks of age.
- Vaccinate any introduced sheep that have an unknown vaccination status or have been known not to be previously vaccinated.
- Purchase approved vaccinates as replacements where possible.

Paddock Management

- Fence off wet and shady areas as this type of environment can prolong the survival of the bacteria outside of the animal host.
- If these areas are required for use, only stock them with terminal lambs or animals that are about to go to slaughter.

Grazing Management

- Higher environmental bacterial loads can be expected when there are high levels of infection rates within flocks. An infected flock with a high stocking density can be a recipe for disaster. Producers should aim to use grazing management strategies that decrease the level of exposure lambs are challenged with before and after weaning
- Prepare 'low contamination' paddocks. These paddocks require at least six weeks in summer and six months in other seasons to become prepared. You can do this by:
 - grazing with terminal lambs or young cattle
 - using paddocks that are part of a crop rotation
 - re-sowing pasture.
- If the availability of 'low contamination' paddocks is minimal, preference should be given to putting the weaners into these paddocks, rather than the lambing ewes.
- Early weaning to separate lambs from infected ewes.

Retain the least at risk animals in your flock

Animals retained for breeding should be sourced from the lowest risk management groups. This includes:

- animals that are approved vaccinates
- younger age groups
- mobs that have been HT-J non-detected on testing and/or are not showing clinical signs.

Maintain Ewes in Year of Birth Mobs

If a particular year of birth group has a breakdown with Johne's Disease, this allows the progression of the disease to slow down and decrease transmission between age groups.

Culling of 'poor doers'

Regularly monitor your flock and cull any sheep that are slipping in condition, especially ewes prior to lambing.

General Husbandry

- Maintain a strategic and effective worm control program incorporating regular Worm Egg Counts and Drench Resistance Trials
- Vaccinate for other susceptible diseases to best protect the immune system by using a 5in1, 6in1 or 8in1
- Trace Mineral testing and or supplementation when in deficient areas.